

Plate VIII, A.

- Fig. 1. *Cyclophorus fuscicolor*, n. sp.
 ,, 2. *Streptaulus Blanfordi*, Bs. (the shorter line shews the height of the aperture, the longer, the length of shell).
 ,, 3. ————— var. *α*.
 ,, 4. ————— var. *β*. (*tubulus*).
 ,, 5. *Cyathopoma Nevilli*, n. sp.
 ,, 6, 6a. ————— *Jawaiensis*, n. sp.
 ,, 6b. ————— labial ribbon.
 ,, 6c. ————— head of animal shewing position of the eyes
 (the sketch was taken from a specimen after removal from its shell, the tentacles are therefore much contracted).
 ,, 7. *Carychium Indicum*, Bs.
 ,, 8. ————— *Khasianum*, G-A.

XIII.—*Descriptions of some new Land and Freshwater Shells from India and Burmah.*—By W. THEOBALD.

(Recd. June 4th ;—Read July 7th, 1875.)

(With Plate XIV.)

SESARA HUNGERFORDIANA, n. sp., Pl. XIV, Fig. 1.

Testa lenticulari, imperforata, cornea, confertim transverse striata, ad apicem obtusum et umbilicum circa lævigata. Anfractibus sex lente crescentibus, ultimo acute sive filiforme carinato, et ad aperturam (per anfractus ultimi dimidium) descendente. Apertura fere verticali, marginibus callo tenuissimo junctis. Labio incrassato, dentibus tribus æquidistantibus instructo, dente interiori libero, cæteris callo brevi junctis.

Lat. major 11·00, lat. minor (?) 11·00, alt. 5·50 mm.

Habitat ad 'Mizan-toung' prope ripas 'Salwin' fluminis provinciæ 'Martaban' haud procul a Maulmein.

This interesting addition to the *Sesara* group was forwarded to me by Dr. Hungerford from near Maulmein. It recalls *T. Attaranensis*, Th., but differs in its descending last whorl, and in its teeth, which are larger and more equal, whilst the callus uniting the two outer ones is less developed than in that species, in which it constitutes a horse-shoe-shaped fillet. In some specimens the shell may be perforate, as it is a thin callus only which seems spread across the narrow umbilical opening.

SESARA INERMIS, n. sp., Pl. XIV, Fig. 2.

Testa sublenticulari, angustissime umbilicata, depressa, cornea, subpolita, sed supra exilissime transverse striata. Anfractibus septem, ultimo

filiforme carinato, non descendente. Apertura fere verticali. Labio subincrassato, sinuato, dentibus nullis instructo.

Lat. maj. 11·60, lat. minor. 10·80, alt. 4·80 mm.

Habitat in valle fluminis 'Salwin' haud procul a Maulmein provinciâ Martaban.

The exact locality where I procured this species I do not know, beyond that it was near the Salween. It is interesting as the simplest form of the group to which it belongs, having no teeth and rather feeble striation. Its habit, however, is quite that of a *Sesara*, and it comes from what is almost the headquarters of the group in Burmah.

CORASIA BOURDILLONII, n. sp., Pl. XIV, Fig. 3.

Testa conoidea, obtecto-perforata, carinata, tenui, polita, albida, translucente, sub epidermide pallide straminea et decidua lineis exilissimis flexuosis spiraleriter ornata. Anfractibus 4½, celeriter crescentibus, ad apicem mammillatum paullo convexis, sed ultimo supra planato et circa umbilicum paullo inflato. Apertura magna subquadrata; marginibus simplicibus callo tenuissimo junctis.

Diam. maj. 25·4, diam. min. 19·5, alt. 14·8, aperturae alt. 16·0, ejusdem lat. 14·0 mm.

Habitat montibus in umbrosis provinciâ Travankor haud procul a Travandrum Indiâ Australi, teste F. Bourdillon.

A few dead examples of this handsome and evidently arboreal species have reached me through the kindness of Mr. Bourdillon, after whom I have named it, and to whom I am indebted for a small collection of shells from the same locality. Among these were *Cyclophorus Niligiricus*, *Catalus Calcadensis*, *Myxostoma deplanatum*, *Micraulax scabra* n. sp., *Ditropis planorbis*, *Myxopoma hirsutum*, the recently described *Hemiplecta Beddomei*, *Rotula indica* (a large form of 28 mills and a small stout form of 17 mills), *R. Shiplayi*, *Sitala apicata*, a single reversed arboreal *Helix* of the *albizonata* type (*Geotrochus Calcadensis*), a *Glessula* which seems a mere variety of *G. parabilis*, a stouter form with more arcuate columella (probably *G. Deshayesiana*), and a small species not determined, a *Streptaxis*, and *Hapalus Travankoricus*, n. sp.

MICRAULAX, subgenus novum.

Cyclophori habitu planorbulari, testa sulco brevi intus instructa, operculo?

MICRAULAX SCABRA, n. sp., Pl. XIV, Fig. 4.

Testa late et profunde umbilicata, et sulco haud profundo et valde inconspicuo intus instructa, linea parum elevata externe notato. Anfractibus

4—4½ *convexis, ultimo subinflato, celeriter crescente, et ad aperturam non descendente. Epidermide scabra, juxta aperturam corrugata. Apertura parum obliqua, subcirculari, breviter adnata. Operculo?*

Lat. major 14·20, lat. minor 12·00, alt 6·20, aperturæ lat. 6·00 mm.

Habitat montibus in umbrosis provinciæ Travankor Indiæ Australi, teste F. Bourdillon.

This is a very interesting section of the planorbular *Cyclophori*, uniting the *Myxostoma* type with the turbinate *Lagocheilus*. The canal of *Cataulus* is merely, it would seem, a more highly developed and specialised representation of the shallow groove in this species.

HAPALUS TRAVANKORICUS, Th., Pl. XIV, Fig. 5.

Testa turrita, anguste umbilicata, tenui, translucienti-cornea; epidermide sericea. Anfractibus 5 valde convexis. Apertura verticali, quadrato-ovata, marginibus simplicibus, aliquando callo tenui junctis; labio ad umbilicum paullo reflexo.

Alt. 6·5, lat. 3·9, aperturæ alt. 2·2, ejusdem lat. 1·5 mm.

Habitat montibus in umbrosis provinciæ Travankor Indiæ Australi, teste F. Bourdillon.

It has been suggested that this is nothing more than the young of *Cataulus Calcadensis*, numerous specimens of which were forwarded to me at the same time, but it differs from the young of that species when of the same size, as was seen from numerous examples. Two specimens only of the present form were found, both dead shells, but in fair condition. The form of the mouth is peculiar and the silky lustre of the epidermis also.

SPIRACULUM BHAMOENSE, n. sp.

Testa depressa, aperto-umbilicata. Apice elevatiusculo, sutura profunda, anfract. 4½ convexis, ultimo juxta aperturam parum descendente. Epidermide tenui, leviter striata, vix scabriuscula. Colore corneo-albescente, fasciâ mediana cincto, strigisque castaneis fulguratis picto, superioribus latis, inferioribus autem (sive subfascialibus) angustis. Aliquando unicolore, corneo-stramineo. Apertura obliqua magna. Peristomate duplici, intus ad suturam angulato-inciso; extra alam linguiformem subtubularem horizontalen adnatam formante. Tubulo suturali recurvato ab apertura 3 mm. distante.

Diam. max. 11·00, diam. min. 8·50, alt. 5·50 (-oris diam.) apertura 5·20 mm.

Habitat prope Bhamo valle Iravadi Regno Burmanico.

The nearest ally of this interesting form is *S. Avatum*, W. Bl., which it approaches in the recurved form of its sutural tube, but it differs in size and mode of colouration. In *S. Avatum*, too, the linguiform projection of

the peristome is vertical, not as in the present species horizontal. The colouration, too, is peculiar, the fulgurate stripes above the peripheral band being much more open or more obtusely bent than in the narrow or more acutely angled bands below it.

SPIRACULUM BITUBIFERUM, n. sp.

Testa depressa, late umbilicata, apice depresso, sutura profunda, anfract. 5 convexis, ultimo prope tubulum paullo ascendente, inde descendente. Epidermide scabriuscula spiraliter striata; colore albido, transverse vix subfulgurate castaneo strigato. Perist. simplici, expansiusculo, recurvato, prope suturam alam formante, tubulo brevissimo sursum spectante instructo. Tubulo suturali recurvato ab apertura 8 mm. distante. Apertura obliqua.

Diam. max. (peristomate incluso) 18·30, diam. min. 14·00, alt. 7·00, apert. 7·80 mm.

Habitat prope Bhamo cum precedente.

This remarkable species differs from most others in possessing a distinct tubular wing at the mouth which somewhat recalls the same feature in *Pt. Albersi*, only the tube is more free and open. The only other species possessing a second tube is *S. Mastersi* figured in the Conch. Indica, Pl. V, Fig. 1, but not described. In that species, however, the last whorl towards the mouth is free and the peristomial tube less complete though longer than in the present form.

STREPTAXIS BOMBAX, Bs., Pl. XIV, Fig. 6.

I give an excellent drawing of this species kindly furnished to me by Mr. W. T. Blanford. The species was originally described as *Helix bombax* from an immature specimen. The adult now figured was from the vicinity of Maulmein.

AMPHIDROMUS THEOBALDIANUS, Bs., Pl. XIV, Fig. 8.

A figure is here given of a perfect example of this rare shell, which was described by Benson from an imperfect example.

GEOTROCHUS CALCADENSIS, Beddome, Pl. XIV, Fig. 7.

I also figure a specimen of this species (Beddome, J. A. S. B. 1870, p. 18) forwarded to me by Mr. Bourdillon from Travankor. It is slightly smaller than the type, measuring alt. 20, diam. major 14·80, minor 12·80, aperturæ alt. 11·00, ejusdem lat. 8·00 mm.

UNIO FOOTEI, n. sp., Pl. XIV, Fig. 9.

Testa elongata, rotundato-quadrata, valde inæquilaterali ab umbonibus angulata, et infra et antice valde compressa, concentricè striata et postice

radiatim striata. Dentibus cardinalibus fortibus, in callo costiformi positus, in valva dextra duobus alteraque singulis, subverticalibus. Cicatricibus valde depressis. Pallii impressione valde conspicua.

Diam. maj. 97, minor 40, crass. 25 mm.

Habitat in Kistna flumine prope 'Gutparba falls,' teste A. B. Foote.

This shell has its valves divided into two subequal areas by a strong ridge running back and down from the beaks. The lower and anterior portion is strongly compressed, simulating the appearance of *Arca subtorta*, though there is no true 'version' in the valves. The strong cardinal rib which supports the cardinal teeth is also a marked feature of this species, as well as its radiating striæ intersecting the concentric lines of growth. Unfortunately the beaks are much decayed in my two specimens and their sculpture wholly effaced.

I am indebted to my colleague Mr. Foote for both shells collected by him at the 'Gutparba' falls.

PISIDIUM BOMBAYANUM, n. sp.

Testa subovali, tumida, tenui, inæquilaterali, postice rotundata, viz truncata; antice rotundata elongata; exilissime et confertim concentrice striata; dente cardinali minutissimo; dentibus lateralibus in valva dextra geminis, in sinistra autem singulis.

Lat. 4·30, alt. 3·70, crass. 2·70 mm.

Habitat in Indiæ occidentalis regione "Western Ghats" dicta, teste W. T. Blanford.

I have long had specimens of this shell from Western India, and it is the same as that mentioned by Mr. Nevill when describing his *P. Clarkeanum* (J. A. S. B., 1871, Part II, p. 9, Pl. I, Fig. 4.). The subangulation mentioned by Nevill is more discernible in young shells than in adults, which are symmetrically rounded. This species is extremely closely allied to *P. Clarkeanum*, but is more convex posteriorly. By an inadvertence of the describer the posterior side of *P. Clarkeanum* is described as the longer instead of the anterior as correctly shown in the figure.

PISIDIUM NEVILLIANUM, n. sp.

Testa trigona, tumidiuscula, tenui, inæquilaterali, postice modice convexa, antice elongata, subacuminata, exilissime concentrice striata; umbonibus lævigatis.

Lat. 3·60, alt. 3·50, crass. 2·20 mm.

Habitat prope Rurki.

A single specimen only of this species was communicated to me by Mr. G. Nevill. Its trigonal form most readily distinguishes it from its allies.

PISIDIUM ATKINSONIANUM, n. sp.

Testa subovali, vix tumida, inæquilaterali, antice elongata, utrinque rotundata, tenui, pallide cornea, concentrice striatula, et lineis paucis (4—5) incrementi fortioribus signata.

Lat. 3·30, *alt.* 2·70, *crass.* 1·80 mm.

Habitat ad Tonglu in Sikkim ad 10000 ped. alt., teste W. S. Atkinson.

Compared with *P. Bombayanum* this is a smaller, flatter, and less inæquilateral shell. My specimens were given me by Mr. H. F. Blanford, who received them direct from the discoverer.

XIV.—*Descriptions of new Species of Blattidæ belonging to the Genus Panesthia.*—By JAMES WOOD-MASON.

PANESTHIA MONSTRUOSA, n. sp.

Ingens, aptera, aterrima, nitida. Corpore crassissimo. Tegumento valde indurato. Pronoto in maribus valdissime, in fœminis modice, inæquali et impresso; bituberculato; incisura profunda, lata, medio recta et linea elevata marginata, lateribus cornigera, cornubus in mare magnis, in femina modicis, reflexis, apice plicatis. Abdominis segmentis basalibus infraque supraque sparsim minute punctatis, ultimo laminaque supraanali punctis crebrioribus necnon grandioribus conspersis hac postice 5-dentata. Pedibus validis, spinis tibialibus fortibus armatis; femoribus anticis trispinosis. Long. corporis maris 58 mm.; pronoti $14\frac{1}{3}$, pronoti lat. $19\frac{1}{2}$, incisuræ lat. 6; mesonoti long. 9, mesonoti lat. $21\frac{2}{3}$; metanoti long. 8, metanoti lat. 23; abdom. long. 30, abd. lat. (ad medium) 23. Long. corp. fem. 52.

HAB.—A male and a female from Southern India (R. C. Beddome).

This fine insect offers a curious resemblance to the *Gromphadorhina portentosa*, Schaum, from Madagascar.

PANESTHIA WALLACEI, n. sp.

Aterrima, nitidissima. Pronoto ut in *P. morione* sed nitidiores et distinctius crebriusque punctato. Abdomine sparsim punctulato, punctis apicem versus sensim frequentioribus ac paullo majoribus; segmento ultimo marginibus integro angulisque posticis vix producto; lamina supraanali disco parce fulvo-pilosa, postice rotundata, tota integra, dentibus lateralibus nullis; lamina subgenitali confertim grosse punctata. Cercis tumidis, fulvo-pilosis. Tegminibus alisque pæne ut in *P. morione*; abdominis apicem longe superantibus; venarum omnium parte apicali perspicua utrinque pallida, subhyalina; illorum vena anali recta impressa hyalina. Femoribus anticis basin versus bidentatis. Long. corporis maris, $36\frac{1}{2}$ mm., pronoti $9\frac{2}{3}$, pronoti lat. 14, long. tegminum 40, alarum 35, abdom. 18, abd. lat. (ad medium) 16.